

Listing of Claims

52. (currently amended) A semiconductor component comprising:

a substrate comprising a plurality of ~~tested~~ semiconductor components including a plurality of patterns of component contacts; and

~~including a plurality of good components and at least one defective component;~~

a plurality of conductors on the ~~substrate~~ components in electrical communication with the component contacts configured to redistribute the patterns of the component contacts into selected patterns and to either repair, reconfigure, or electrically isolate selected components; and

~~provide electrical paths to the good components while electrically isolating the at least one defective component; and~~

a plurality of terminal contacts on the components in the selected patterns in electrical communication with the conductors.

53. (currently amended) The component of claim 52 wherein the substrate comprises a semiconductor wafer and the components comprise semiconductor dice or semiconductor packages on the semiconductor wafer.

54. (currently amended) The component of claim 52 wherein the conductors ~~comprise~~ are contained in a metal ~~laser patterned~~ redistribution layer.

55. (currently amended) The component of claim 52 wherein the conductors are configured to electrically

connect multiple components in a cluster that excludes ~~the~~ at least one defective component.

56. (currently amended) A semiconductor component comprising:

a substrate comprising a plurality of tested components ~~, each component~~ comprising a plurality of component contacts in a plurality of patterns;

the components including a plurality of good components and a defective component;

a plurality of conductors ~~on the substrate~~ configured to redistribute the patterns of the component contacts into selected patterns, to provide electrical paths for the component contacts on the good components, and to electrically isolate the component contacts on the defective component; and

a plurality of terminal contacts on the good components in the selected patterns in electrical communication with the conductors.

57. (currently amended) The component of claim 56 wherein the conductors ~~comprise~~ are contained in a metal redistribution layer.

58. (previously presented) The component of claim 56 wherein the conductors are configured to electrically connect a plurality of good components in a cluster.

59. (previously presented) The component of claim 56 wherein ~~the~~ substrate comprises a semiconductor wafer, and the components comprise semiconductor dice or semiconductor packages.

60. (currently amended) A semiconductor component comprising:

a semiconductor die comprising a plurality of integrated circuits and a plurality of component contacts in a pattern in electrical communication with the integrated circuits;

a plurality of conductors on the die in electrical communication with the component contacts configured to redistribute the pattern of the component contacts into a selected pattern; and

a plurality of terminal contacts on the die in the selected pattern in electrical communication with the conductors;

at least some of the conductors configured to ~~interconnect or~~ electrically isolate selected component contacts.

~~or selected terminal contacts to repair defects on the die.~~

61. (currently amended) The component of claim 60 wherein the terminal contacts comprise balls or bumps in a ball grid array.

62. (currently amended) The component of claim 60 wherein the conductors are contained in a metal ~~comprise a laser patterned~~ redistribution layer.

63. (currently amended) A test board for testing semiconductor components on a substrate including a plurality of good components and at least one defective component, each component having a plurality of component contacts, the test board comprising:

a plurality of first test sites on the test board comprising a plurality of contacts configured to

electrically engage the component & contacts on the good components on the substrate; and

a plurality of second test sites on the test board configured to electrically isolate the defective component.

~~the test sites comprising a plurality of conductors configured to provide electrical paths to the components and to electrically isolate at least one component on the substrate.~~

64. (currently amended) The test board of claim 63 wherein the test board includes a patterned metal layer containing a plurality of conductors in electrical communication with the first test sites.

~~conductors comprise a laser patterned metal layer.~~

65. (currently amended) The test board of claim 63 wherein the test board is configured to perform a burn-in test and the second test sites are configured to electrically isolate the defective component during the burn-in test.

66. (currently amended) The test board of claim 63 wherein the substrate comprises a semiconductor wafer, and the components comprise dice or packages.

Claims 67-69 (Canceled)

70. (currently amended) A semiconductor component comprising:

a semiconductor die comprising a plurality of contacts in a first pattern and a plurality of integrated circuits in electrical communication with the contacts;
~~including at least one defective integrated circuit;~~

a plurality of terminal contacts on the die in a second pattern; and

a metal redistribution layer on the die ~~comprising a plurality of laser patterned~~ containing a plurality of conductors configured to redistribute the first pattern of the contacts to the second pattern of the terminal contacts, and to either repair, reconfigure, or electrically isolate selected integrated circuits.

~~electrically connect the terminal contacts to the integrated circuits and to electrically isolate the terminal contacts from the at least one defective integrated circuits.~~

71. (currently amended) The component of claim 60 wherein the terminal contacts comprise balls or bumps ~~in~~ and the second pattern comprises a grid array.

72. (currently amended) The component of claim 60 wherein the contacts comprise bond pads.

~~further comprising a plurality of bond pads on the die in electrical communication with the integrated circuits and the conductors.~~

73. (currently amended) The component of claim 60 wherein the conductors fan out from the first pattern to the second pattern.

~~redistribution layer comprises a metal.~~

74. (currently amended) The component of claim 60 wherein the component is contained on a substrate.

~~conductors are separated by etched openings.~~

75. (previously presented) The component of claim 60 further comprising a protective layer on the conductors having a plurality of openings for the terminal contacts.

76. (currently amended) The component of claim 60 wherein the component comprises a semiconductor package.
~~conductors comprise a deposited metal.~~

77. (currently amended) The component of claim 60 wherein the conductors are configured to repair ~~the~~ at least one defective integrated circuits.